Attachment 2

Drawings

DTFAEN-11-R-00103

REPLACE RAISED FLOOR

AT

THE JACKSONVILLE AIR ROUTE TRAFFIC CONTROL CENTER (ARTCC)

HILLIARD, FLORIDA

ARTCC - HILLIARD, FLORIDA
REPLACE RAISED FLOOR AND INSTALL SRG IN AUTOMATION WING

DRAWING LIST

DRAWING NO.	REV.	DATE	DESCRIPTION
ZJX-D-905683-G001		10/27/2010	COVER AND INDEX SHEET
ZJX-D-905683-A001		10/27/2010	REPLACE RAISED FLOOR AND INSTALL SRG IN AUTOMATION WING FLOOR PLAN (BASEMENT)
ZJX-D-905683-A002		10/27/2010	REPLACE RAISED FLOOR AND INSTALL SRG IN AUTOMATION WING ENLARGED TECHS OFFICE FLOOR PLAN/REFLECTED CEILING PLAN
ZJX-D-905683-E001		10/27/2010	REPLACE RAISED FLOOR AND INSTALL SRG IN AUTOMATION WING INSTALLATION SIGNAL REFERENCE GRID
ZJX-D-905683-E002		10/27/2010	REPLACE RAISED FLOOR AND INSTALL SRG IN AUTOMATION WING SRG DETAILS
ZJX-D-905683-E003		10/27/2010	REPLACE RAISED FLOOR AND INSTALL SRG IN AUTOMATION WING LIGHTING / POWER PLAN - DEMO
ZJX-D-905545-E004		10/27/2010	REPLACE RAISED FLOOR AND INSTALL SRG IN AUTOMATION WING LIGHTING PLAN - NEW

REV	APPROVED DATE	DESCRIPTION	JCN	REQUIRE DATE	APVD

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
ATO - TECHNICAL OPERATIONS **EASTERN SERVICE AREA**

ARTCC
COVER AND INDEX SHEET

HILLIARD JACKSONVILLE CENTER FL

REVIEWED BY:

SUBMITTED BY CONTRACTOR SIGNED BY: Douglas W. Anderson
PROJECT ENGINEER
DESIGNED DMA
DRAWN AT
CHECKED

APPROVED BY ORIGINAL SIGNED BY: Angel A. Arroyo
MGR: ENGINEERING - ATLANTA
DATE 10/27/2010 JCN 905683
DRAWING NO ZJX-D-905683-G001 REV

ISSUED BY ENGINEERING SERVICES ENROUTE/FSS

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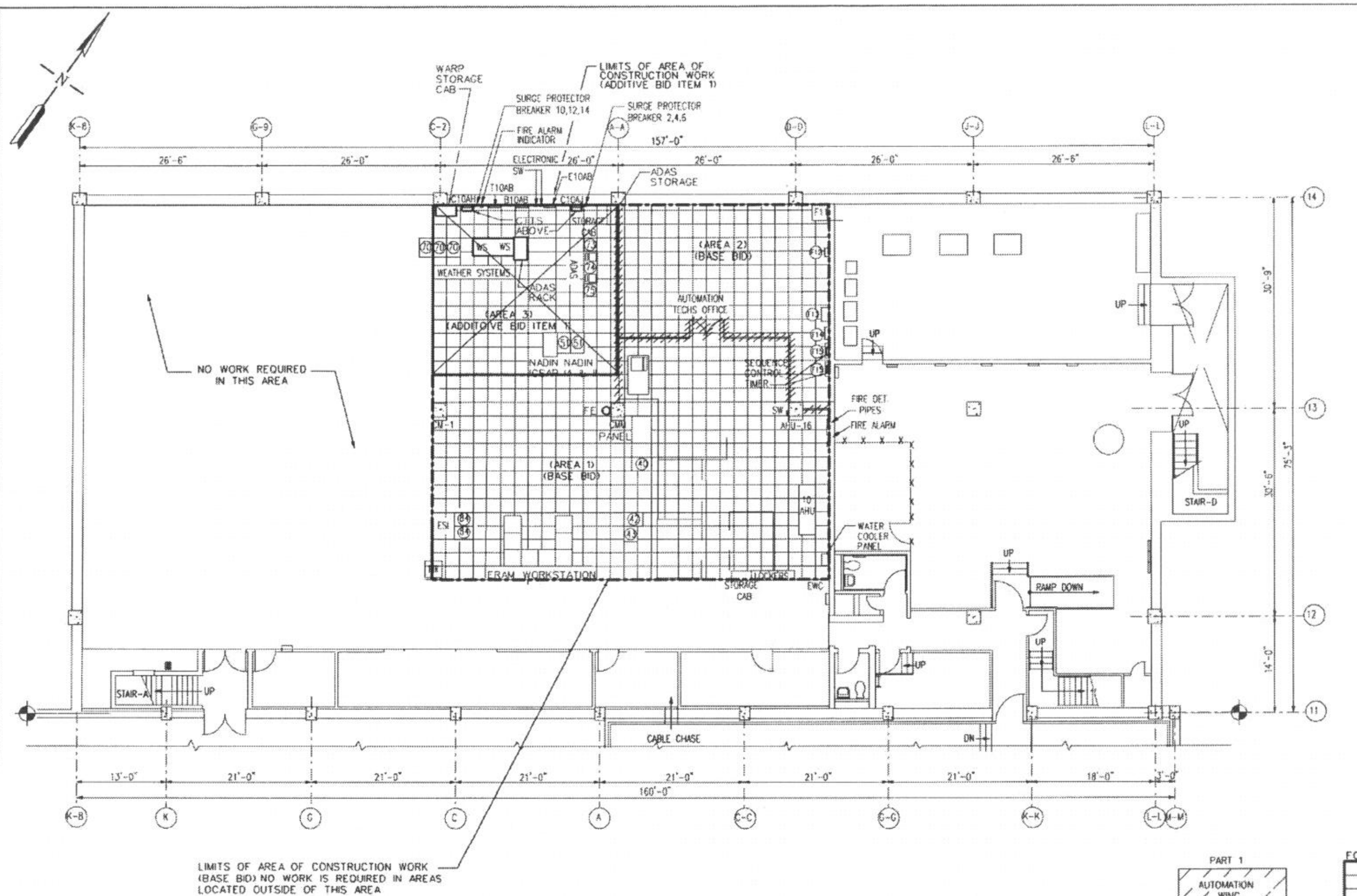
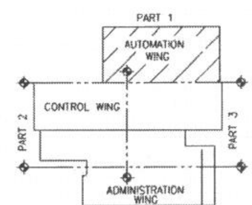


1 A001 AUTOMATION WING FLOOR PLAN (BASEMENT)

SCALE: 1/8" = 1'-0"



KEY PLAN

NOTES

1. CONTRACTOR SHALL REMOVE EXISTING ACCESS FLOORING IN IT'S ENTIRETY IN THE THREE AREAS SHOWN.
2. CONTRACTOR SHALL PROVIDE LABOR TO INSTALL GOVERNMENT FURNISHED ACCESS FLOORING SYSTEM TO INCLUDE STRINGERS, PEDESTALS AND FLOOR TILES SHOWN IN AREA UNDER BASE BID AND ADDITIVE BID ITEM 1 (AREA 3).
3. REMOVAL AND INSTALLATION OF ACCESS FLOORING SYSTEM TO BE ACCOMPLISHED BY WORKING SEQUENTIALLY IN AREAS AS IDENTIFIED AND COORDINATED WITH THE ARTCC.
4. ALL EXISTING NAS EQUIPMENT MUST BE PROTECTED DURING THE DURATION OF THE PROJECT. NAS EQUIPMENT MUST REMAIN OPERATIONAL AT ALL TIMES.
5. AIRFLOW TO NAS EQUIPMENT MUST BE MAINTAINED THROUGHOUT THE ENTIRE PROJECT.
6. AFTER REMOVAL OF EXISTING FLOOR AND PRIOR TO INSTALLATION OF NEW FLOOR THE CONTRACTOR SHALL INCLUDE UP TO THREE WEEKS OF DOWNTIME TO ALLOW FAA TO PERFORM CLEAN UP ACTIVITIES.

LEGEND

#	NEW ACCESS FLOORING
	ISLAND SHOWING OPERATIONAL NAS EQUIPMENT
/////////	EXISTING CONSTRUCTION TO BE REMOVED IN IT'S ENTIRETY SEE ENLARGED FLOOR PLAN ON SHEET A002

FOR CM DETAILS SEE SO-D-101711-001.

REV	APPROVED DATE	DESCRIPTION	JCN	REQUIRE DATE	APVD

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
ATO - TECHNICAL OPERATIONS **EASTERN SERVICE AREA**

ARTCC

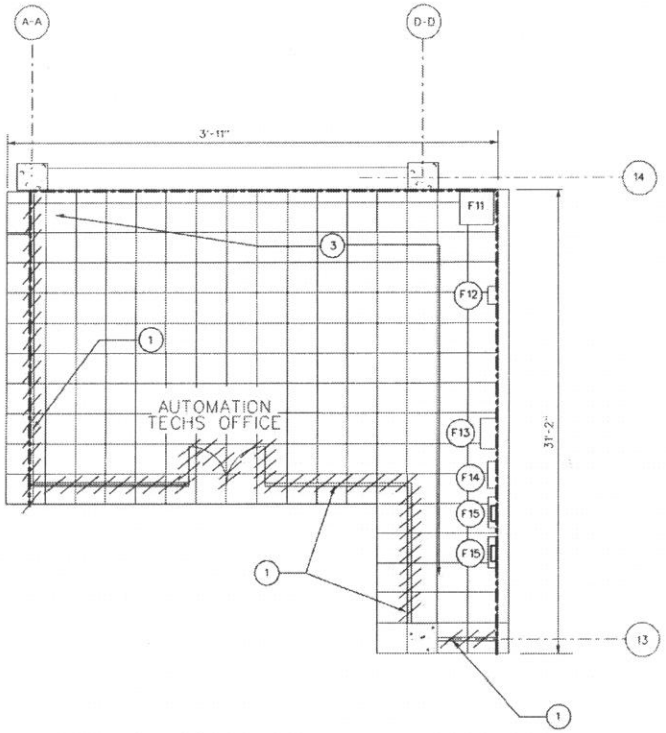
REPLACE RAISED FLOOR AND INSTALL SRG IN AUTOMATION WING FLOOR PLAN (BASEMENT)

HILLIARD JACKSONVILLE CENTER FL

REVIEWED BY | SUBMITTED BY/ORIGINAL SIGNED BY: Douglas W. Anderson, PROJECT ENGINEER | APPROVED BY/ORIGINAL SIGNED BY: Angel A. Arroyo, MGR: ENGINEERING - ATLANTA

DO NOT SIGN

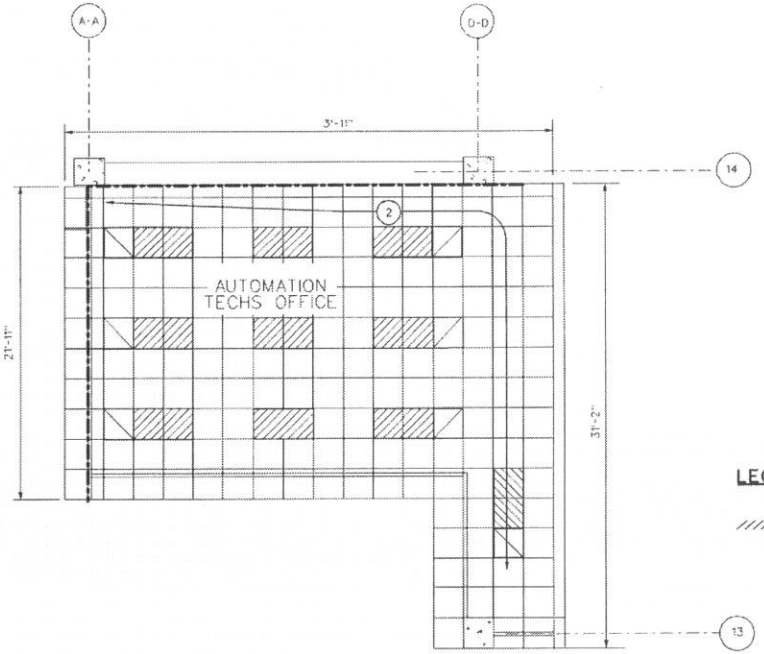
DESIGNED DMA | DRAWN RB | CHECKED | ISSUED BY ENGINEERING SERVICES ENROUTE/FSS | DATE 10/27/2010 | JCN 905683 | DRAWING NO ZJX-D-905683-A001 | REV



1 A002 AUTOMATION TECHS OFFICE PLAN (ENLARGED)

4' 0 4' 8'

SCALE: 1/4" = 1'-0"



2 A002 AUTOMATION TECHS OFFICE REFLECTED CEILING PLAN

4' 0 4' 8'

SCALE: 1/4" = 1'-0"

NOTES

1. REMOVE EXISTING PARTITION WALL SYSTEM TO INCLUDE DOORS AND MISCELLANEOUS ELECTRICAL WIRING AS SHOWN IN THE AUTOMATION TECH'S OFFICE.
2. REMOVE EXISTING SUSPENDED ACOUSTICAL CEILING AND LIGHT FIXTURE IN ITS ENTIRETY IN THE AUTOMATION TECH'S OFFICE (SEE ELECTRICAL SHEET E003).
3. RELOCATE EXISTING VIKING FIRE CYCLE SPRINKLERS AND HEAT DETECTORS TO UNDERSIDE OF CEILING DECK ABOVE. LOCATIONS SHALL BE PER NFPA 13 AND NFPA 72 AND VIKING FIRE CYCLE DATA SHEETS FOR EXISTING SYSTEM. DATA SHEETS OBTAIN FROM FACILITY. PROVIDE NICET LEVEL III SHOP DRAWINGS FOR REVIEW AND APPROVAL BEFORE BEGINNING WORK. PROVIDE SCHEDULE 40 STEEL PIPE FOR SPRINKLERS AND RIGID METALLIC ELECTRICAL CONDUIT FOR HEAT DETECTORS. TEST RELOCATED HEAT DETECTORS PER NFPA 72 TO ENSURE PROPER OPERATION. PROVIDE WRITTEN TEST REPORT IN ACCORDANCE WITH NFPA 72 AND MANUFACTURER'S GUIDE LINES.

LEGEND

EXISTING CONSTRUCTION TO BE REMOVED TO INCLUDE PARTITION WALL SYSTEM, DOORS, FRAMES, LIGHT FIXTURES AND ASSOCIATED ELECTRICAL WIRING.

REV	APPROVED DATE	DESCRIPTION	JCN	REQUIRE DATE	APVD

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
ATO - TECHNICAL OPERATIONS **EASTERN SERVICE AREA**
ARTCC

REPLACE RAISED FLOOR AND INSTALL SRG IN AUTOMATION WINENLARGED TECHS OFFICE FLOOR PLAN/REFLECTED CEILING PLAN

HILLIARD — JACKSONVILLE CENTER — FL

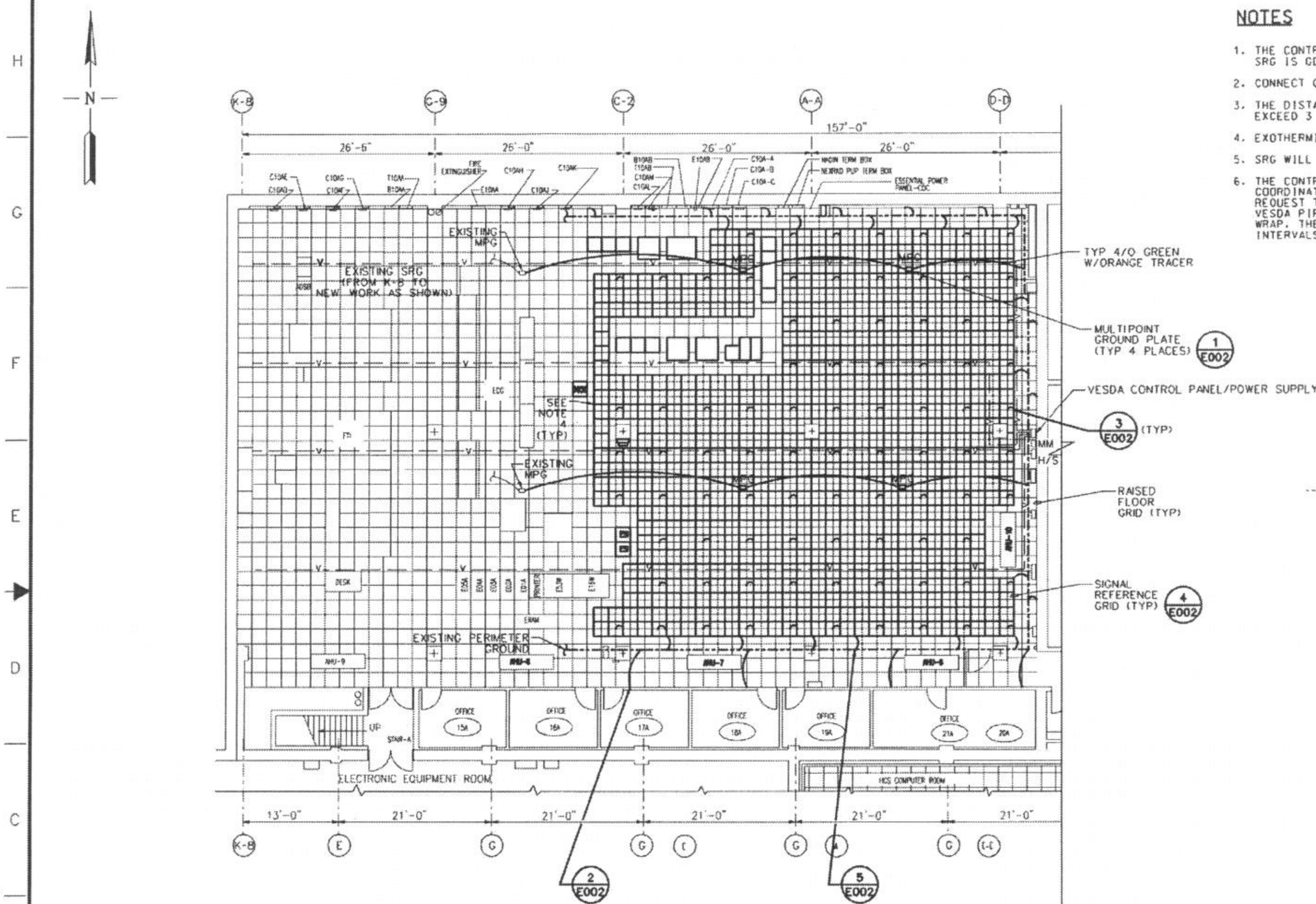
REVIEWED BY

SUBMITTED &/OR DESIGNED BY: Douglas W. Anderson — PROJECT ENGINEER — DESIGNED: DWA — DRAWN: AT — CHECKED

APPROVED BY ORIGINAL SIGNED BY: Angel A. Acevedo — MGR. ENGINEERING - ATLANTA — DATE: 10/27/2010 — JCN: 905683 — DRAWING NO: ZJX-D-905683-A002 — REV:

ISSUED BY: ENGINEERING SERVICES ENROUTE/FSS

DO NOT SIGN



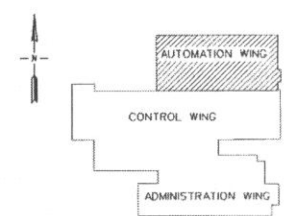
1 E001 AUTOMATION WING ROOM 10A - SIGNAL REFERENCE GRID

SCALE: 1/8" = 1'-0"

NOTES

1. THE CONTRACTOR SHALL INSTALL SRG DURING EACH PHASE OF FLOOR REPLACEMENT SRG IS GOVERNMENT FURNISHED. ALSO SEE NOTE 6.
2. CONNECT GRID TO PERIMETER GROUND BUS EVERY 10'-0" BY SMOKELESS EXOTHERMIC WELD.
3. THE DISTANCE FROM THE EXTERNAL WALLS OF THE ROOM TO THE SRG SHALL NOT EXCEED 3 FEET.
4. EXOTHERMIC WELD EXISTING AUTOMATION WING SRG TO NEW SRG. SEE DETAIL 4/E002.
5. SRG WILL NOT BE INSTALLED UNDER ELECTRONIC EQUIPMENT.
6. THE CONTRACTOR SHALL CAREFULLY DISCONNNECT THE VESDA PIPING FROM THE FLOOR PEDESTALS. COORDINATE WITH PEDESTAL REMOVAL AND SRG INSTALLATION. THE CONTRACTOR SHALL REQUEST THE COTR TO HAVE THE VESDA CONTROL DISABLED DURING CONSTRUCTION. THE VESDA PIPING MAY BE LAID ON THE FLOOR BUT PROTECTED FROM DUST WITH A CLEAR "POLY" WRAP. THE CONTRACTOR SHALL RECONNECT THE PIPES USING EXISTING CLAMPS AT 4 FOOT INTERVALS.

---V--- VESDA AIR SAMPLING PIPE (EXISTING UNDER FLOOR AND ATTACHED TO RAISED FLOOR PEDESTAL AT 4 FOOT INTERVALS)



KEY PLAN

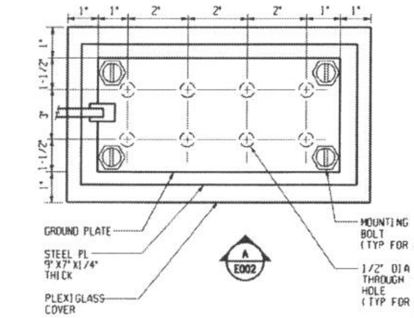
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
ATO - TECHNICAL OPERATIONS — EASTERN SERVICE AREA

ARTCC

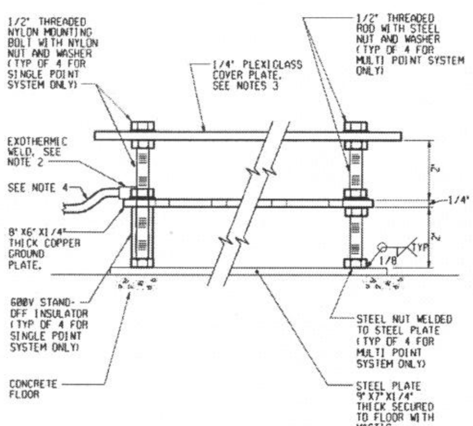
REPLACE RAISED FLOOR AND INSTALL SRG IN AUTOMATION WING INSTALLATION SIGNAL REFERENCE GRID

HILLIARD — JACKSONVILLE CENTER — FL

SUBMITTED BY: VI V. Ho, PROJECT ENGINEER
APPROVED BY: Angel A. Arroyo, MGR: ENGINEERING - ATLANTA
DESIGNED EN — DRAWN MI — CHECKED
ISSUED BY: ENGINEERING SERVICES ENROUTE/FSS
DATE 10/27/2010 — JCN 905683
DRAWING NO. ZJX-D-905683-E001



PLAN VIEW



(A / E002) ELEVATION

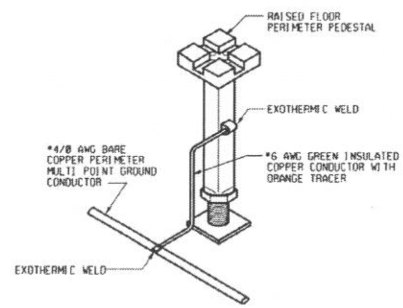
NOT TO SCALE

NOTES

1. REMOVE ALL BURRS AND SHARP EDGES.
2. GROUND CONDUCTOR IS SHOWN ON ONE END OF GROUND PLATE. INSTALL CONDUCTOR ON BOTH ENDS OF GROUND PLATE WHEN SHOWN ON PLANS.
3. FOR MULTI POINT PLATE, COVER SHALL HAVE GREEN LABEL WITH ORANGE SLASHES AND SHALL BE PERMANENTLY MARKED "MULTI POINT GROUND SYSTEM".
4. #4/0 AWG GREEN INSULATED CONDUCTOR WITH ASSOCIATED ORANGE (MULTI POINT).

(1 / E002) MULTIPOINT GROUND PLATE

NOT TO SCALE

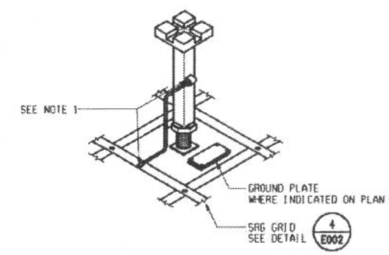


NOTE

1. GROUND RAISED FLOOR PERIMETER PEDESTAL TO PERIMETER MULTIPOINT GROUND CONDUCTOR AT 10'-0" MAXIMUM INTERVALS.

(2 / E002) RAISED FLOOR PERIMETER PEDESTAL GROUNDING

NOT TO SCALE

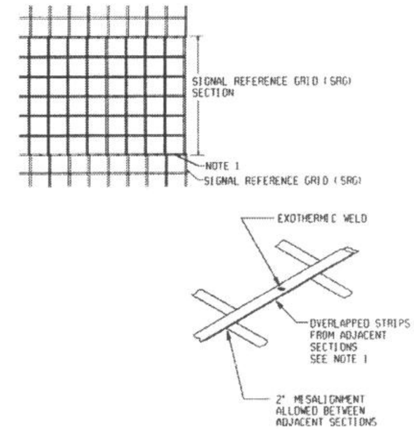


NOTE

1. BOND EVERY THIRD RAISED FLOOR PEDESTAL IN EACH DIRECTION TO THE SRG GRID USING A #6 AWG GREEN INSULATED W/ORANGE TRACER COPPER CONDUCTOR AND EXOTHERMIC WELDS.

(3 / E002) EQUIPMENT ROOM RAISED FLOOR PEDESTAL GROUNDING

NOT TO SCALE

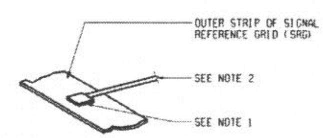


NOTE

1. WHERE ONE ROLL OF GRID IS LAID NEXT TO ANOTHER, THE OUTER EDGES OF THE ROLLS SHALL OVERLAP TO FORM A SINGLE STRIP AND SHALL BE EXOTHERMICALLY WELDED TOGETHER AT 2 FOOT INTERVALS.

(4 / E002) SRG GRID TO GRID CONNECTION

NOT TO SCALE



NOTES

1. BOND #6 AWG GREEN INSULATED W/ORANGE TRACER COPPER CONDUCTOR TO THE SRG USING EXOTHERMIC WELD. THE CONDUCTOR SHALL TAKE THE SHORTEST PATH TO THE SRG WITH LENGTH NOT EXCEEDING 4 FEET.
2. CONNECT SRG GRID TO MULTI POINT PERIMETER GROUND CONDUCTOR AT 10'-0" MAXIMUM INTERVALS.

(5 / E002) GROUND CONNECTION TO SRG

NOT TO SCALE

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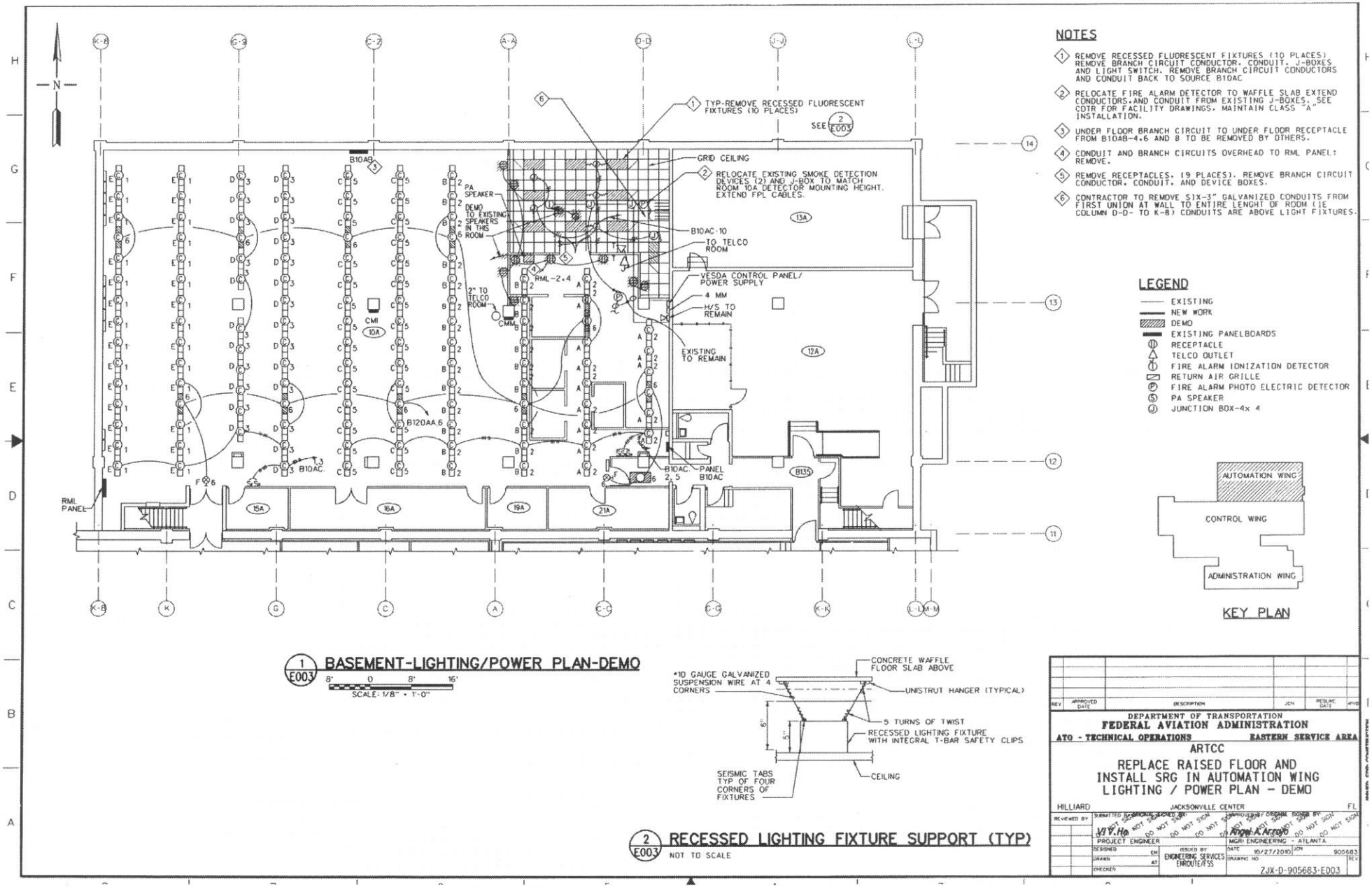
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
ATO - TECHNICAL OPERATIONS **EASTERN SERVICE AREA**

ARTCC
REPLACE RAISED FLOOR AND INSTALL SRG IN AUTOMATION WING
SRG DETAILS

HILLIARD JACKSONVILLE CENTER FL

REVIEWED BY / SUBMITTED BY: [illegible] V.V. Ho — PROJECT ENGINEER — APPROVED BY: Angel A. Arroyo — MGR: ENGINEERING - ATLANTA

DESIGNED EN · DRAWN MI · CHECKED · ISSUED BY: ENGINEERING SERVICES ENROUTE/FSS · DATE 10/27/2010 · JCN 905683 · DRAWING NO ZJX-D-905683-E002



NOTES

1. REMOVE RECESSED FLUORESCENT FIXTURES (10 PLACES). REMOVE BRANCH CIRCUIT CONDUCTOR, CONDUIT, J-BOXES AND LIGHT SWITCH. REMOVE BRANCH CIRCUIT CONDUCTORS AND CONDUIT BACK TO SOURCE B10AC
2. RELOCATE FIRE ALARM DETECTOR TO WAFFLE SLAB EXTEND CONDUCTORS AND CONDUIT FROM EXISTING J-BOXES. SEE COTR FOR FACILITY DRAWINGS. MAINTAIN CLASS "A" INSTALLATION.
3. UNDER FLOOR BRANCH CIRCUIT TO UNDER FLOOR RECEPTACLE FROM B10AB-4,6 AND 8 TO BE REMOVED BY OTHERS.
4. CONDUIT AND BRANCH CIRCUITS OVERHEAD TO RML PANEL: REMOVE.
5. REMOVE RECEPTACLES. (9 PLACES). REMOVE BRANCH CIRCUIT CONDUCTOR, CONDUIT, AND DEVICE BOXES.
6. CONTRACTOR TO REMOVE S1X-3" GALVANIZED CONDUITS FROM FIRST UNION AT WALL TO ENTIRE LENGHT OF ROOM (IE COLUMN D-D- TO K-B) CONDUITS ARE ABOVE LIGHT FIXTURES.

LEGEND

- EXISTING
- NEW WORK
- DEMO
- EXISTING PANELBOARDS
- RECEPTACLE
- TELCO OUTLET
- FIRE ALARM IONIZATION DETECTOR
- RETURN AIR GRILLE
- FIRE ALARM PHOTO ELECTRIC DETECTOR
- PA SPEAKER
- JUNCTION BOX-4x 4

KEY PLAN

1 E003 **BASEMENT-LIGHTING/POWER PLAN-DEMO**

8' 0 8' 16'

SCALE: 1/8" = 1'-0"

2 E003 **RECESSED LIGHTING FIXTURE SUPPORT (TYP)**

NOT TO SCALE

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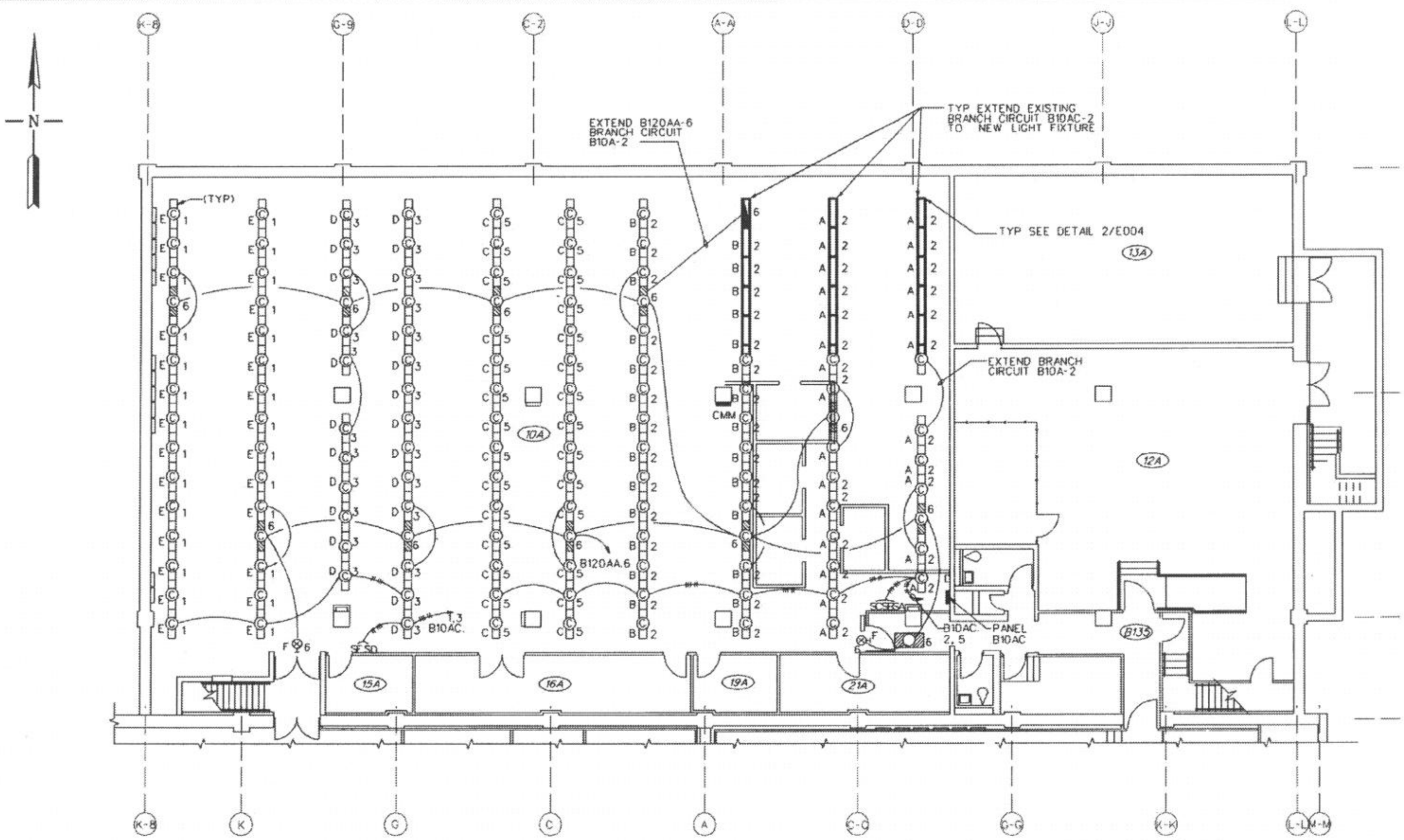
FEDERAL AVIATION ADMINISTRATION
ATO - TECHNICAL OPERATIONS — EASTERN SERVICE AREA

ARTCC

REPLACE RAISED FLOOR AND INSTALL SRG IN AUTOMATION WING LIGHTING / POWER PLAN - DEMO

HILLIARD — JACKSONVILLE CENTER — FL

REVIEWED BY	SUBMITTED BY (ORIGINAL SIGNED BY): DO NOT SIGN	APPROVED BY (ORIGINAL SIGNED BY): DO NOT SIGN	
	PROJECT ENGINEER	MGMT ENGINEERING - ATLANTA	
	DESIGNED EH	ISSUED BY: ENGINEERING SERVICES ENROUTE/ESS	DATE 10/27/2010 JCN 905683
	DRAWN AT		DRAWING NO REV
	CHECKED		ZJX-D-905683-E003

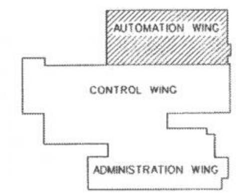


1 E004 BASEMENT-LIGHTING PLAN

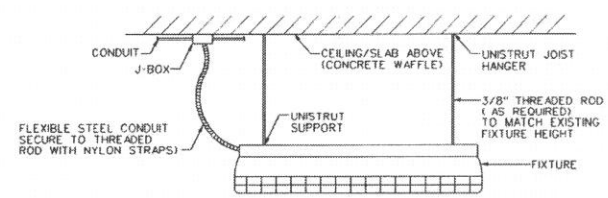
SCALE: 1/8" = 1'-0"

LEGEND

- PENDANT FLOURESCENT 1x 4-2 LAMPS 277V ON CENTRAL BATTERY SYSTEM
- PENDANT FLOURESCENT 1x 4-2 LAMPS 277V
- EXISTING
- NEW WORK



KEY PLAN



2 E004 PENDANT MOUNTED LIGHTING FIXTURE

NOT TO SCALE

REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
ATO - TECHNICAL OPERATIONS **EASTERN SERVICE AREA**

ARTCC

REPLACE RAISED FLOOR AND INSTALL SRG IN AUTOMATION WING LIGHTING PLAN - NEW

HILLIARD — JACKSONVILLE CENTER — FL

REVIEWED BY | SUBMITTED BY: V.V. Ho, PROJECT ENGINEER | APPROVED BY: Angel A. Arroyo, MGR. ENGINEERING - ATLANTA

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